

What is claimed is:

1. An intake apparatus of an engine for a vehicle with an engine mounted on a body frame that includes a head pipe in a front end of the body frame, the head pipe being configured to support a front fork that has a front wheel pivotably mounted thereon, the intake apparatus comprising:

an air cleaner configured to clean air to be supplied to the engine, the air cleaner being located behind the head pipe; and

an intake duct arranged below the head pipe and extending forward from the air cleaner, the intake duct including a first intake passage and a second intake passage arranged on at least one side of the first intake passage, the first intake passage being located on a center line in a width direction of the front wheel,

wherein a flow area of the first intake passage is larger than a flow area of the second intake passage, and an intake control valve is configured to close the first intake passage when the engine rotates at a first speed and is configured to open the first intake passage when the engine rotates at second speed, where the first speed is lower than the second speed.

2. The intake apparatus according to claim 1, further comprising a second intake control valve configured to change the flow area of the second intake passage to open the second intake passage when the engine rotates at the first speed and to close the second intake passage when the engine rotates at the second speed,

wherein the first intake control valve is fixed to a valve shaft rotatably supported in the intake duct.

3. The intake apparatus according to claim 1, further comprising a baffle board attached to the intake duct and arranged at a position spaced from a front end opening portion of the second intake passage, thereby forming a gap with the front end opening portion of the second intake passage.

4. The intake apparatus according to claim 1, wherein a front end of the first intake passage is configured to open forward on a front end of the intake duct, and a front end opening portion of the second intake passage is formed on a front end portion of the intake duct and is configured to open in a direction that is different from an opening direction of the front end of the first intake passage.

5. The intake apparatus according to claim 1, the intake apparatus being configured for use with a body frame of the vehicle that further includes a left-and-right pair of main frames extending rearward and downward from the head pipe with intermediate portions in a longitudinal direction of the main frames being curved to protrude out to the side,

wherein a front end portion of the intake duct is formed into an substantially triangular shape when viewed from front the front of the vehicle, an upper edge pf the intake duct extends along a lower edge of a continuous portion of the head pipe and both main frames, and a lower edge of the intake duct extends along an upper portion of a radiator arranged below the intake duct.

6. The intake apparatus according to claim 1, further comprising an actuator mounted on the vehicle in order to drive an operating member that is controlled in response to the number of revolutions of the engine, the actuator being connected to the intake control valve to drive the intake control valve to open and close.

7. The intake apparatus according to claim 1, wherein the first intake control valve is fixed to a valve shaft having an axis orthogonal to a flowing direction of air through the first intake passage, and the first intake control valve is rotatably supported in the intake duct such that when the first intake passage is closed by the first intake control valve, the first intake control valve is tilted rearward and upward.
8. The intake apparatus according to claim 7, wherein the first intake control valve is configured such that when the first intake passage is closed by the first intake control valve, an area above the valve shaft is larger than an area below the valve shaft.
9. The intake apparatus according to claim 1, including the vehicle.
10. An intake apparatus of an engine for a vehicle, the intake apparatus comprising:  
an air cleaner, the air cleaner having a first air intake passage and a second air intake passage, with both first and second air intake passages being configured to face a forward direction when installed on the vehicle;  
wherein the first air intake passage is large than the second air intake passage, and the air intake apparatus is configured so that the first air intake passage is open and the second air intake passage is closed when the engine rotates at a first speed, and the first air intake passage is closed and the second air intake passage is open when the engine rotates at a second speed, with the first speed being greater than the second speed.
11. The intake apparatus according to claim 10, wherein the first and second intake air passages are arranged in line in a width direction of the vehicle.

12. The intake apparatus according to claim 10, further comprising a third intake air passage, wherein the three air intake passages are arranged in line in a width direction of the vehicle.
13. The intake apparatus according to claim 10, wherein a plurality of the first and second air intake passages are provided, and a member that is configured to open and close the first and second air intake passages is made as a single structure.
14. The intake apparatus according to claim 10, further comprising control valves configured to control the opening and closing of the first and second air intake passages are provided in the respective passages, and the respective control valves are controlled to open and close in a manner of being mutually interlocked.
15. The intake apparatus according to claim 10, wherein the first and second air intake passages open in the vicinity of a bottom bridge that supports a front fork, and ends of at least one of the first and second air intake passages are configured to be fixed to an upper portion of a radiator.
16. The intake apparatus according to claim 10, wherein at least two second air intake apparatus are formed on the sides of the first air intake apparatus, and the two second air intake apparatus are controlled to close together at the first speed and to open at the second speed.
17. The intake apparatus according to claim 10, wherein the first and second air intake passages are formed into an approximately triangular shape having an upward convex, and are formed to go along a lower end edge of a front cowl when viewed from the front of the vehicle.

18. The intake apparatus according to claim 16, wherein the first air intake passage is formed to a width that is approximately the width of the distance between the front forks of a motorcycle, and each of the two second air intake passages on the sides thereof are formed to a width that is approximately the width of a front fork.

19. The intake apparatus according to claim 10, including the vehicle.

20. An intake apparatus of an engine for a vehicle with an engine mounted on a body frame that includes a head pipe in a front end of the body frame, the head pipe being configured to support a front fork that has a front wheel pivotably mounted thereon, the intake apparatus comprising:

an air cleaning means configured to clean air to be supplied to the engine, the air cleaner being located behind the head pipe; and

an intake means arranged below the head pipe and extending forward from the air cleaner, the intake means including a first intake passage means and a second intake passage means arranged on at least one side of the first intake passage means, the first intake passage means being located on a center line in a width direction of the front wheel,

wherein a flow area of the first intake passage means is larger than a flow area of the second intake passage means, and an intake control valve means is configured to close the first intake passage means when the engine rotates at a first speed and is configured to open the first intake passage means when the engine rotates at second speed, where the first speed is lower than the second speed.